Claims

1. A method of allocating resources in a telecommunications system, wherein signals are transmitted over a signal space, the method including:

generating a sampled receive signal from a receive signal;

deriving an interference level threshold on the basis of an iterative statistical analysis of the sampled receive signal;

identifying an interfered portion of the signal space on the basis of a comparison of the sampled receive signal and the interference level threshold; and

reducing transmit resources from the interfered portion of the signal space.

2. The method of claim 1, wherein the step of deriving the interference level threshold includes at least one iteration step comprising:

calculating the mean of the sampled receive signal;

generating the interference level threshold by using the mean, and a predefined reliability factor characterizing statistics of a non-interfered portion in the sampled receive signal; and

neglecting a portion of the sampled receive signal, the portion lying above the interference level threshold.

3. The method of claim 1, further including reducing receive resources from the interfered portion of the signal space.

4. The method of claim 1, wherein the step of reducing the transmit resources includes at least one element from the group comprising: attenuating a portion of transmit signal, the portion being located in the interfered portion of the signal space; excising a portion of the transmit signal, the portion being located in the interfered portion of the signal space.

5. The method of claim 1, further including transmitting information on the interfered portion of the signal space; and

receiving the information; and

reducing the transmit resources from the interfered portion of the signal space on the basis of the information.

6. The method of claim 1, further including transmitting information on the interfered portion of the signal space; and

receiving the information; and

reducing the receive resources from the interfered portion of the signal space on the basis of the information.

7. The method of claim 1, further including allocating transmit resources to a non-interfered portion of the signal space.

8. The method of claim 1, wherein the signal space includes at least one dimension selected from the group comprising: a spatial dimension, a temporal dimension, a frequency dimension, a fractional frequency dimension.

9. A transceiver of a telecommunications system, wherein signals are transmitted over a signal space, the transceiver including:

a sampling unit for generating a sampled receive signal from a receive signal;

a deriving unit for deriving an interference level threshold on the basis of an iterative statistical analysis of the sampled receive signal;

an identifying unit for identifying an interfered portion of the signal space on the basis of a comparison of the sampled receive signal and the interference level threshold; and

a transmitting unit for transmitting information on the interfered portion of the signal space to a second transceiver.

10. The transceiver of claim 9, wherein the deriving unit is configured to perform an iterative procedure including tasks of:

calculating the mean of the sampled receive signal;

generating the interference level threshold by using the mean, and a predefined reliability factor characterizing statistics of a non-interfered portion in the sampled receive signal; and

neglecting a portion of the sampled receive signal, the portion lying above the interference level threshold.

11. The transceiver of claim 9, further including a receive resource allocation unit connected to the identifying unit, for reducing receive resources from the interfered portion of the signal space.

12. The transceiver of claim 9, wherein the signal space includes at least one dimension selected from the group comprising: a spatial dimension, a temporal dimension, a frequency dimension, a fractional frequency dimension.

13. A transceiver of a telecommunications system, wherein signals are transmitted over a signal space, the transceiver including:

a sampling unit for generating a sampled receive signal from a receive signal;

a deriving unit for deriving an interference level threshold on the basis of an iterative statistical analysis of the sampled receive signal;

an identifying unit for identifying an interfered portion of the signal space on the basis of a comparison of the sampled receive signal and the interference level threshold; and

a transmit resource allocation unit for reducing transmit resources from the interfered portion of the signal space.

14. The transceiver of claim 15, wherein the deriving unit is configured to perform an iterative procedure including tasks of:

calculating the mean of the sampled receive signal;

generating the interference level threshold by using the mean, and a predefined reliability factor characterizing statistics of a non-interfered portion in the sampled receive signal; and

neglecting a portion of the sampled receive signal, the portion lying above the interference level threshold.

15. The transceiver of claim 13, further including a receive resource allocation unit connected to the identifying unit, for reducing receive resources from the interfered portion of the signal space.

16. The transceiver of claim 13, wherein the transmit resource allocation unit is configured to perform at least one of the tasks selected from a group including: attenuating a portion of a transmit signal, the portion being located in the interfered portion of the signal space; excising a portion of a transmit signal, the portion being located in the interfered portion of the signal space.

17. The transceiver of claim 13, further including a transmitting unit for transmitting information on the interfered portion of the signal space to a second transceiver.

18. The transceiver of claim 13, wherein the transmit resource allocation unit is configured to allocate transmit resources to a non-interfered portion of the signal space.

19. The transceiver of claim 13, wherein the signal space includes at least one dimension selected from the group comprising: a spatial dimension, a temporal dimension, a frequency dimension, a fractional frequency dimension.

20. A transceiver of a telecommunications system, wherein signals are transmitted over a signal space, the transceiver including:

a receiving unit for receiving information on an interfered portion of the signal space from a second transceiver; and

a transmit resource allocation unit for reducing transmit resources from the interfered portion of the signal space on the basis of the information.

21. The transceiver of claim 20, further including a receive resource allocation unit connected to the receiving unit, for reducing receive resources from the interfered portion of the signal space on the basis of the information.

22. The transceiver of claim 20, wherein the transmit resource allocation unit is configured to perform at least one task selected from a group comprising: attenuating a portion of a transmit signal, the portion being located in the interfered portion of the signal space; excising a portion of the transmit signal, the portion being located in the interfered portion of the signal space.

23. The transceiver of claim 20, wherein the transmit resource allocation unit is configured to allocate transmit resources to a non-interfered portion of the signal space.

24. The transceiver of claim 20, wherein the signal space includes at least one dimension selected from the group comprising: a spatial dimension, a temporal dimension, a frequency dimension, a fractional frequency dimension.

25. A telecommunications system, wherein signals are transmitted over a signal space, the telecommunications system including:

generating means for generating a sampled receive signal from a receive signal;

deriving means for deriving an interference level threshold on the basis of an iterative statistical analysis of the sampled receive signal;

identifying means for identifying an interfered portion of the signal space on the basis of a comparison of the sampled receive signal and the interference level threshold; and

reducing means for reducing transmit resources from the interfered portion of the signal space.

26. The telecommunications system of claim 25, wherein the deriving means include:

calculating means for calculating the mean of the sampled receive signal;

generating means for generating the interference level threshold by using the mean, and a predefined reliability factor characterizing statistics of a non-interfered portion in the sampled receive signal; and

neglecting means for neglecting a portion of the sampled receive signal, the portion lying above the interference level threshold, in a succeeding iteration step,

wherein the combination of the calculating means, generating means, and neglecting means acts in an iterative manner.

27. A computer program for executing a computer process in a telecommunications system, wherein signals are transmitted over a signal space, the computer process comprising the steps of:

receiving as input a sampled receive signal generated from a receive signal;

deriving an interference level threshold on the basis of an iterative statistical analysis of the sampled receive signal; and

identifying an interfered portion of the signal space on the basis of a comparison of the sampled receive signal and the interference level threshold; and

outputting information on the interfered portion of the signal space.

28. A computer program of claim 27, wherein the computer process further includes the iterative steps of:

calculating the mean of the sampled receive signal;

generating the interference level threshold by using the mean, and a predefined reliability factor characterizing statistics of a non-interfered portion in the sampled receive signal; and

neglecting a portion of the sampled receive signal, the portion lying above the interference level threshold, in a succeeding iteration step.

29. A computer program of claim 27, wherein the computer process further includes the step of reducing transmit resources from the interfered portion of the signal space.

30. A computer program for executing a computer process in a telecommunications system, wherein signals are transmitted over a signal space, the computer process comprising the steps of:

receiving as input information on an interfered portion of the signal space; and

reducing transmit resources from the interfered portion of the signal space on the basis of the information.

31. A computer program of claim 30, wherein the computer process further includes the step of allocating transmit resources to a non-interfered portion of the signal space.